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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,313	03/27/2001	Chii-Hwang Chang	67,200-392	1765

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EXAMINER

MOORE, KARLA A

ART UNIT PAPER NUMBER

1763

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,313

Applicant(s)

CHANG ET AL.

Examiner

Karla Moore

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ed

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0301.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,454,909 to Matsuse et al. in view of U.S. Patent No. 5,928,389 to Jevtic.

5. Matsuse et al. disclose a method for operating a multi-chamber fabrication tool comprising: providing a multi-chamber fabrication tool comprising a series of chambers (Figure 7); defining for each chamber within the series of chambers a minimum of one fabrication process to provide a series of fabrication processes corresponding with the series of chambers, wherein at least one fabrication process may be undertaken within more than one chamber (see column 6, rows 37-41 and column 9, rows 18-20) and at least one chamber (10b and 10c) has defined therein more than one fabrication process including

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the at least one fabrication process which may be undertaken in more than one chamber. Also see column 9, rows 1-31.

6. However, Matsuse et al. fail to explicitly teach or suggest processing within the multi-chamber fabrication tool a substrate while employing the at least one fabrication process which may be undertaken within more than one chamber, wherein a chamber within which is processed the substrate while employing the at least one fabrication process which may be undertaken within more than one chamber is selected such as to optimize utilization of the multi-chamber fabrication tool.

7. Jevtic teaches a processing method comprising efficient scheduling of a multi-chamber processing tool for the purpose of improving a multi-chamber processing tools throughput/utilization (column 2, rows 51-65 and column 14, rows 41-49). Examiner also notes that it is well-known in the art, and in all other manufacturing industries, to schedule in a way that provides for maximum utilization of ones tools.

8. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided efficient scheduling in Matsuse et al. in order to obtain a multi-chamber processing tool with improved throughput/utilization as taught by Jevtic.

9. With respect to claim 2, the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications (column 1, rows 15-25 of Matsuse et al.).

10. With respect to claim 3, the series of chambers comprises at least about 1 chamber (see Figure 7 of Matsuse et al.).

11. With respect to claim 4, the series of fabrication processes is selected from the group consisting of vacuum etch processes, vacuum deposition processes and vacuum implantation processes (column 4, rows 28-32 and column 6, rows 38-40 of Matsuse et al.).

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12. With respect to claim 5, the method further comprises defining a series of chamber constraints for the series of chambers; defining a series of process constraints for the series of processes; and defining a series of substrate constraints for the substrate (column 6, rows 19-45 of Jevtic).

13. With respect to claim 6, in the method, the series of chamber constraints, the series of process constraints and the series of substrate constraints is prioritized through use of an algorithm when selecting the chamber within which is processed the substrate (column 2, row 61 through column 3, row 5 and column 4, rows 12-16; also see Figures 3-8 of Jevtic).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

km
11 June 2004

P. Hassanzadeh
Parviz Hassanzadeh
Primary Examiner
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